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RUEHBJ/AMEMBASSY BEIJING 0828
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SIPDIS
SENSITIVE

STATE PLEASE PASS USAID
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DOE FOR T.SPRL, G.PERSON, A.BIENAWSKI, M.SCOTT, L.PARKER

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TAGS: [ENRG](#) [EMIN](#) [EPET](#) [SENV](#) [BEXP](#) [AMGT](#) [SF](#)
SUBJECT: ESKOM AVOIDS LOAD-SHEDDING - FOR NOW

REF: PRETORIA 1288 AND PREVIOUS

11. (SBU) SUMMARY: South African state power utility Eskom has managed to avoid load-shedding this Southern Hemisphere winter, but still faces short and long-term shortfalls in power generation and distribution capacity. The power crisis - which reached its height with significant mine closures in January this year - is not over, but rationing to big users and mild weather have kept supply ahead of demand. Johannesburg's municipal City Power has taken steps to increase its independent power reserve, but its claim to be "load-shedding-proof" is overly optimistic. Its Kelvin Power Station provides the bulk of its power cushion, but an Embassy team visit found the plant antiquated and in need of refurbishing. End Summary.

Chronic Power Woes Unchanged

12. (SBU) State power supplier Eskom has threatened, but not had to resort to load-shedding this winter. However, the utility still faces multiple challenges:

- Shortfall in capacity vis a vis demand until 2013 when new coal-fired plants start to come on line;
- A razor-thin reserve margin of around six-eight per cent;
- Persistent and vexing skills shortages;
- Difficulties in procuring and transporting coal; and
- Underinvestment and uncertainties in distribution.

13. (SBU) Two weeks ago, Eskom had to shut down three generating units (totaling 2,154 MW, over five percent of its capacity) and barely avoided a return to load-shedding. Coal-fired units at Majuba and Duvha and one of the units at Koeberg nuclear station went down. The coal-fired units were quickly put back on line, but the Koeberg unit remains off-line for repairs. Stories of Eskom's skills gap are legion. Recently an Eskom grid planner told Information Officer that his office had not been able to retain or recruit qualified personnel. Eskom has been struggling to procure and transport coal. On August 7, Eskom took its 1500 coal trucks off the battered roads of Mpumalanga and Limpopo to highlight safety concerns in light of sixteen fatalities last month. Eskom has brought in two miners, Anglo-Gold Ashanti's ex-CEO Bobby Godsell and ex-Kumba iron miner Ras Myburgh, to provide sorely needed leadership as chairman and coal guru, respectively. The utility has successfully imposed a ten per cent consumption reduction on big

industrials and mines, and they appear to have broadly adapted to this forced rationing of the biggest customers. Eskom has also benefited from a mild winter, its normal peak demand season.

Nuclear Power Expansion on Track

¶4. (SBU) In the longer term, Eskom aims to bring on line up to 20,000 MW of nuclear power by 2028. Westinghouse and Areva of France are bidding on the first tranche of 3,000 MW and the full fleet. Eskom is expected to make a decision at the end of September. Embassy is working with FCS and the SAG to organize an ASME standards conference October 7-8 to facilitate localization and globalization of the South African nuclear power supplier industry, Qglobalization of the South African nuclear power supplier industry, to indirectly support Westinghouse's bid.

Johannesburg City Power - Load-Shedding-Proof?

¶5. (SBU) Johannesburg municipal power supplier City Power and a city councilor assured consumers on July 29 that load shedding was a thing of the past, because the municipal utility had enough electricity even if Eskom requested a cut in supply. City Power asserted that it had at least 500 MW in reserves out of its 3,200 MW requirement, because of the Kelvin Power Plant, plans to refurbish inactive gas turbines, new pricing incentives to mitigate demand, and plans to install smart meters and solar water heaters.

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¶6. (SBU) In an August 7 tour of Johannesburg's Kelvin Power Plant, General Manager Stephen Meyer told a team from the Embassy economic, TDA, and FCS sections that Eskom's power and skills situation is still "extremely tight" and the grid is subject to volatility and spikes in voltage. He described the lack of load-shedding as offering the "illusion of okay," noting the system is still based on wasteful use premised on cheap electricity (even after the regulator-approved increase of 27 percent, bitterly contested by the labor federation COSATU in its wide work stoppage on August 6). Meyer said South Africa still has the second cheapest electricity in the world, and as a result it remains "extraordinarily wasteful and inefficient". This has to change.

¶7. (SBU) Meyer said Kelvin Power Plant provides about 150-300 MW of cushion to City Power, which compensates the plant's owner based on capacity to provide electricity, rather than actual electricity delivered. The twin plants at Kelvin have a theoretical or historical capacity of 600 MW, but the plant is antiquated and has experienced under-investment from previous owners, including American AES, which participated in the 2003 privatization. Meyer represents UK-based Aldwych International, which led an investor group which took over Kelvin in 2007, after banks took over the asset from Globeleq, which followed in the heels of AES. Moreover, City Power has technical limitations in the capacity of their distribution systems to off-take from Kelvin. Meyer's staff showed the Embassy team the 1950's-vintage (1930's technology) Plant A which combusts coal on "chain grate feeders" and the 1960's-vintage Plant B which more efficiently combusts pulverized coal.

¶8. (SBU) COMMENT: The lack of load-shedding and decrease in jaw-boning to reduce demand give consumers the illusion that the power crisis is over. Eskom has been lucky with a mild winter and unplanned maintenance (barely) staying within the thin reserve margin (also reflecting that last summer's planned maintenance was productive). When planned maintenance kicks in again later this calendar year, the system may again be subjected to planned and unplanned brown-outs. Eskom's financial and credit wherewithal for expansion is based on gaining electricity rate increases that is protested vigorously by labor and business.

¶9. (SBU) COMMENT continued: Kelvin Power Plant in Johannesburg is a

unique example of an independent power producer (IPP), but it is a "one-off" as an old facility developed by the municipality to provide a power reserve, then subjected to a series of private owners with differing approaches to investment and maintenance. Kelvin is nevertheless the largest non-Eskom power producer in South Africa, which is emblematic of Eskom's success in resisting IPP's gaining a foothold in the country.

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